

REMARKS

Upon entry of the foregoing amendments, the specification has been amended to address various objections by the Patent Office, which discussed in detail below.

Claims 1-13, 17, 19-22 and 24-52 are canceled.

Claims 14-16, 18, 23 have been amended and claims 53-62 have been added.

Claims 14-16, 18, 23 and 53-62 are pending.

Claims 14-16, 18 and 23 have been amended to limit the claims to nucleic acids identified in the Office Action as having been rejoined with the elected nucleotide encoding a polypeptide of SEQ ID NO:16. As such, the claims are supported by the originally presented claims.

Claims 53-62 are drawn to additional embodiments within the scope of the invention identified in the Office Action as being rejoined with the elected nucleotide encoding a polypeptide of SEQ ID NO:16. In particular, claims 53-58 are drawn to a labeled nucleic acid. Support for such claims is present in particular at Specification pages 32-33. Claims 59-63 are drawn to an isolated nucleic acid encoding a fusion protein. Support for such claims is present in particular at Specification pages 28-32, and in the examples, especially in Example V, beginning at Specification pages 105-108.

Applicants submit that no new matter has been added by the amendments.

Restriction Requirement

Applicants gratefully acknowledge the Patent Office's reconsideration of the restriction requirement and the rejoinder of nucleic acids encoding polypeptides of SEQ ID NO: 6, and 26 with elected nucleic acids encoding the polypeptide of SEQ ID NO:16. In order to expedite prosecution, Applicants have canceled non-elected subject matter, including non-elected claims,

without prejudice to filing of one or more copending applications directed toward inventions no longer claimed in this application. Applicants submit that the claims as amended are in full compliance with the restriction requirement. Acknowledgement of such compliance is respectfully requested.

Information Disclosure Statement

Applicants gratefully acknowledge receipt of copies of a form PTO-1449 (List of References Cited by Applicant), which is signed and initialed by Examiner Nickol. Additionally, Applicants acknowledge receipt of a signed form PTO-892 (Notice of References Cited), also signed by Examiner Nickol.

Specification

The Office Action contained certain objections to the form of the Specification. By the foregoing amendment, the specification has been amended to address the issues raised in the Office Action. In particular, the second paragraph on page 2 of the specification has been amended to add the provisional application number. Also, the description of Figure 3G on page 7 has been amended to identify the sequence number to which it corresponds. Additionally, the description of Figures 10A, 10B, 11B, 11C on page 9 of the Specification have been amended for clarity. Applicants submit that these amendments are fully responsive to the objections raised in the Office Action, and request that the objections be withdrawn.

Claim Objections

The Office Action included an objection to claims 14, 17-18, 20-21 and 23 as being drawn to non-elected subject matter. Applicants submit that by the foregoing amendment, the claims have been limited to nucleic acids that were rejoined with elected SEQ ID NO:16 in the Office Action. Accordingly, Applicants submit that this objection has been overcome, and request that it be withdrawn.

Claim Rejections – 35 USC § 101

The Office Action rejected claims 20-21 as being insufficiently distinguished over nucleic acids as they exist naturally. Without agreeing to this rejection, and merely to expedite prosecution, Applicants note that the claims at issue have been canceled, without prejudice, thereby rendering the rejection moot.

Claim Rejections – 35 USC § 112

The Office Action rejected claims 14-18 and 23 under § 112, first paragraph, as containing subject matter that was not described in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. While Applicants do not concede the propriety of the rejection, they note that the claims at issue have been limited to an isolated nucleic acid molecule consisting of the sequence encoding selected from: (a) DNA encoding the amino acid sequence set forth in SEQ ID NO:6; and (b) DNA that hybridizes to the DNA of (a) under moderately stringent conditions. Applicants thus traverse the rejection as it might apply against the amended claims as follows:

Applicants submit that the Office Action fails to set forth reasons why a claim as amended would not have been adequately described by the Specification. Even presuming arguendo that the original claims would have read on naturally occurring nucleic acids, the claims as amended are limited to those nucleic acids “consisting of” DNA encoding the amino acid sequence of SEQ ID NO:6. As the reasons for the rejection cannot apply to the claims as amended, Applicants submit that, coupled with the knowledge attributable to the skilled artisan (which is high), the specification would have been more than adequate to convey to the person skilled in the art that the inventors had possession of the claimed invention. Accordingly, Applicants respectfully request withdrawal of this ground of rejection.

Claims Rejections – 35 USC § 102

The Office Action rejected claims 14-18, 20-21 and 23 as being anticipated under 35 USC § 102(a) by Watanabe et al. Applicants traverse this rejection.

By the foregoing amendment, the claims have been limited to an isolated nucleic acid molecule consisting of the sequence selected from: (a) DNA encoding the amino acid sequence set forth in SEQ ID NO:6; and (b) DNA that hybridizes to the DNA of (a) under moderately stringent conditions. Applicants submit that such a nucleic acid is neither taught nor suggested by Watanabe.

Applicants are the first to have isolated and identified the DD-domain polypeptide of SEQ ID NO:6, nucleic acids encoding such DD-domain polypeptide, and nucleic acids hybridizable thereto under moderately stringent conditions. Nothing in the Watanabe reference teaches or suggests the existence of such a DD domain polypeptide. Nor does the Watanabe reference teach or suggest nucleic acids consisting of a DNA encoding a DD domain polypeptide. Accordingly, Applicants submit that the claims as amended are not anticipated by Watanabe, and request withdrawal of this rejection.

The Office Action rejected claims 17 and 20-21 as being anticipated under 35 USC § 102(b) by EST Database, Accession No. AA114228. Applicants traverse this rejection.

By the foregoing amendment, the claims have been limited to an isolated nucleic acid molecule consisting of the sequence selected from: (a) DNA encoding the amino acid sequence set forth in SEQ ID NO:6; and (b) DNA that hybridizes to the DNA of (a) under moderately stringent conditions. Applicants submit that such a nucleic acid is neither taught nor suggested by the cited EST.

Applicants are the first to have isolated and identified the DD-domain polypeptide of SEQ ID NO:6, nucleic acids encoding such DD-domain polypeptide, and nucleic acids hybridizable thereto under moderately stringent conditions. Nothing in the cited EST teaches or suggests the existence of such a DD domain polypeptide. Nor does the EST teach or suggest

nucleic acids consisting of a DNA encoding a DD domain polypeptide. In fact, as stated by the Office Action, the EST teaches a nucleic acid having sequence identity with SEQ ID NO:26. The claims having been limited to recite nucleic acids consisting of the DD domain-peptide, Applicants submit that the claims as amended are not anticipated by the cited EST, and respectfully request withdrawal of this rejection.

The Office Action rejected claims 14-16, 20-21 and 23 as being anticipated under 35 USC § 102(e) by Scanlan et al. Applicants traverse this rejection.

By the foregoing amendment, the claims have been limited to an isolated nucleic acid molecule consisting of the sequence selected from: (a) DNA encoding the amino acid sequence set forth in SEQ ID NO:6; and (b) DNA that hybridizes to the DNA of (a) under moderately stringent conditions. Applicants submit that such a nucleic acid is neither taught nor suggested by Scanlan et al.

Applicants are the first to have isolated and identified the DD-domain polypeptide of SEQ ID NO:6, nucleic acids encoding such DD-domain polypeptide, and nucleic acids hybridizable thereto under moderately stringent conditions. Nothing in the Scanlan et al. reference teaches or suggests the existence of such a DD domain polypeptide. Nor does the Scanlan et al. reference teach or suggest nucleic acids consisting of a DNA encoding a DD domain polypeptide. As stated in the Office Action, the nucleic acid taught by Scanlan et al. reference is 833 bases long, whereas a nucleic acid consisting of a DNA encoding the amino acid of SEQ ID NO:6 is 294 bases long. Moreover, the Scanlan et al. reference neither teaches nor suggests the existence of a separate DD domain peptide, such as that of SEQ ID NO:6. Rather, Scanlan et al. is concerned with antigens that are associated with renal cancer. As there is nothing in the Scanlan et al. reference to suggest making or isolating the specific nucleic acids recited in the present claims, Applicants submit that the claims as amended are not anticipated by this reference, and request withdrawal of this ground of rejection.

Patentability of New Claims

Applicants presume that, upon rejoinder of the nucleic acids coding for SEQ ID NO:6, 16 and 26, the Patent Office has fully searched the entirety of these nucleic acids. As no prior art has been identified that would anticipate or render obvious a nucleic acid according to claim 14, Applicants submit that the remaining claims are also patentable over the prior art. In particular, claims 53-59 are drawn to embodiments of the invention in which the nucleic acid recited in claim 14 are combined with a label. Also, claims 60-63 are drawn to nucleic acids encoding fusion proteins that include a peptide consisting of SEQ ID NO:6 and a heterologous protein. As it would appear that claims so limited are neither taught nor suggested by the prior art of record, Applicants submit that newly presented claims 53-63 are patentable. A notice of allowance is therefore respectfully requested.

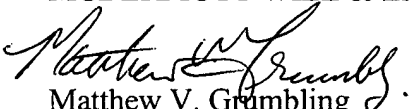
Conclusion

Upon entry of the foregoing amendment, the pending claims are in condition for allowance for reasons stated above. Applicants therefore request that the Patent Office issue a notice of allowance.

Applicants also request the courtesy of a telephone interview should the Examiner deem that such would be helpful to expediting allowance of the application.

Respectfully submitted,

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Date: July 28, 2004